

7.0 Preferred Alternative and Stations

7.1 Introduction

This chapter identifies the Hybrid Alternative with the Mariposa Street Station Alternative in Fresno as the Authority's and FRA's preferred HST alternative for the Merced to Fresno Section (specifically the north-south alignment) and provides an evaluation of the identification of the preferred alternative. This is a new chapter, because the Draft EIR/EIS (Authority 2011) did not identify a preference among the alternatives presented. Because all text in this chapter is newly presented in this Final EIR/EIS, it is shown without highlighting.

Although this chapter identifies the Hybrid Alternative as the Preferred Alternative, the Merced to Fresno Section EIR/EIS process did not result in identification of a preference for certain project components. Therefore, the Authority and FRA have deferred selection of the following:

- The wye connection to the west. All alternatives work with both of the wyes are discussed for informational purposes in the Merced to Fresno Section EIR/EIS. The San Jose to Merced Section EIR/EIS will present these routing options, as well as a third wye option, and will select an east-west connection as the preferred alternative.
- The HMF site. Selecting any of the north-south alignments and subsequently the east-west connections narrows the number of possible HMF sites that are possible with the selected the track alignment. The San Jose to Merced Section EIR/EIS will present the HMF options and select a preferred HMF site. The Fresno to Bakersfield Section is also evaluating HMF sites. Ultimately, one site will be selected for the HMF.

The identification of the preferred alternative is based upon the data presented in the Merced to Fresno Section Draft EIR/EIS, including the supporting technical reports, and comments received on the Merced to Fresno Section Draft EIR/EIS (the 60-day comment period concluded on October 13, 2011).

The Draft and Final EIR/EIS provide an overview of the relative differences among physical and operational characteristics and potential environmental consequences associated with the HST north-south alignment alternatives and station location options, including the following:

- Physical/operational characteristics:
 - Alignment
 - Length
 - Capital cost
 - Travel time
 - Ridership
 - Constructability
 - Operational issues
- Potential environmental impacts
- Environmental impacts:
 - Transportation-related topics (air quality, noise and vibration, and energy)
 - Human environment (land use and community impacts, farmlands and agriculture, aesthetics and visual resources, socioeconomics, utilities and public services, hazardous materials and wastes)
 - Cultural resources (archaeological resources, historical properties) and paleontological resources

- Natural environment (geology and seismic hazards, hydrology and water resources, and biological resources and wetlands)
- Section 4(f) and Section 6(f) resources (certain types of publicly owned parklands, recreation areas, wildlife/waterfowl refuges, and historical sites).

In identifying a preferred north-south alignment alternative, the Authority and FRA were guided by the project purpose and need and project objectives found in Chapter 1, Project Purpose and Need, as well as the objectives and criteria as developed for and recorded in the *Preliminary Alternatives Analysis Report, Merced to Fresno Section High-Speed Train Project EIR/EIS* and the *Supplemental Alternatives Analysis Report, Merced to Fresno Section High-Speed Train Project EIR/EIS* (Authority and FRA 2010a,b, respectively), which can be found at http://www.cahighspeedrail.ca.gov/lib_Merced_Fresno.aspx.

Additionally, these criteria are consistent with Section 404(b)(1), Guidelines of the Clean Water Act (40 CFR 230–233), including minimizing impacts on Waters of the U.S. and other sensitive environmental resources. For the Merced to Fresno Section, these include agricultural resources, cultural resources, and parks.

As a result of the analyses incorporated in the Draft EIR/EIS and the subsequent Final EIR/EIS, as well as the biological assessment of ecosystems impacts and cultural and community impacts, USACE and EPA concurred (on March 26, 2012 and March 23, 2012, respectively) that the Hybrid Alternative is the least environmentally damaging practicable alternative (LEDPA), consistent with USACE's permit program (33 CFR Part 320–331) and EPA's Section 404(b)(1) Guidelines (40 CFR 230–233).

7.2 Summary of Comments

During the comment period, there were 895 comment submittals on the Merced to Fresno Section Draft EIR/EIS. The comments covered a wide range of issues and represented viewpoints from government agencies, organizations, business groups, businesses, residents, and property owners.

Most expressed support or opposition opinions about the project or its alternatives. Of the 895 submittals, approximately 107 generally supported and 127 were generally opposed to the project. Most comments came from individuals in the general public living, working, or with property interests in the project study area. Nearly two-thirds of the comments submitted concerned the UPRR/SR 99 Alternative. Few preferred the BNSF Alternative; most comments on the BNSF Alternative expressed opposition to this alternative. Only a few comments mentioned the Hybrid Alternative by name.

Among comments received from the general public, effects on community resources, agriculture, and private property were the top concerns about the project. Also, comments expressed concern over the project cost estimates, funding availability (including whether any money should be spent on this type of project in light of state and federal budget deficits), and questions regarding the accuracy of the ridership projections. Common issues also covered safety at stations, station access limitations for vehicles and pedestrians, and connectivity to ultimate destinations upon arriving at HST stations. Other common environmental concerns included noise and vibration, ecosystem effects, neighborhoods, and construction effects.

Approximately 100 submittals included suggestions to change the Merced to Fresno Section HST alternatives. Most common among these comments was that the alternatives do not strictly remain within or along existing transportation corridors. These comments most often referenced the east-west wye connections from San Jose and the BNSF Alternative. A common suggestion was to consider an alignment adjacent to I-5 that would bypass this Merced to Fresno Section corridor and the HST stations in Merced and Fresno altogether. In addition, some comments suggested a preference for the State of California to invest in the development of the Amtrak system instead of HST or the use of funding for other infrastructure improvements.

7.2.1 California Legislators

Congressman Dennis Cardoza supports the project; more specifically, he supports the UPRR/SR 99 Alternative because it best follows existing transportation corridors. His comment notes that this project represents job and economic opportunities. However, he noted that it is premature to decide on the HMF site at this time, requesting that the evaluation and discussion of HMF options be removed from the Final EIR/EIS and evaluated at a more appropriate time. State Assembly member Cathleen Galgiani expressed support for the project, its purpose and economic benefit connecting over 5 million persons in the San Joaquin Valley and potential improvements to traffic along SR 99 and I-5, as well as subsequent improvements to air quality. She believes that linking to University of California-Merced will be valuable, but, most important, she believes the project may support additional jobs and economic recovery.

7.2.2 Project Area Local Governments

The City of Merced supports the UPRR/SR 99 Alternative, citing the minimized environmental impacts and opportunities for economic diversification with this alternative. This is supported by several hundred letters from Merced County from persons living in Le Grand, who are very concerned about the effects of the BNSF Alternative on their community. The City of Chowchilla supports the BNSF Alternative with the Ave 21 Wye, and feels that the UPRR/SR 99 Alternative and Ave 24 Wye would divide and disrupt their community. The City of Madera supports the BNSF and the Hybrid alternatives, and feels that the UPRR/SR99 Alternative would divide and disrupt their community as well. However, Fairmead residents expressed concern about impacts on their church and community center after having already endured impacts from changes to SR 99. The City of Fresno did not express support for a particular alternative, but does support the Downtown Fresno Station, and prefers the Mariposa Street Station Alternative over the Kern Street Station Alternative.

Merced County supports the UPRR/SR 99 Alternative over use of the BNSF corridor because of the lower impact on their community, farmland, and the environment, and because it supports the County's planning efforts. Madera County passed a resolution stating their preference for the UPRR/SR 99 Alternative with a wye along SR 152; however, their comments also raised concern about the ability to mitigate impacts on the communities and rural land uses in their county. Fresno County did not address the Merced to Fresno Section.

7.2.3 Federal Agencies and Tribes

EPA expressed no preference among alternatives and expressed concern about minimizing impacts of HST alternatives on wetlands, aquatic resources, air quality, and induced growth. USACE expressed no preference among alternatives and requested more information on mitigation before identifying the LEDPA. NOAA Fisheries did not address specific alternatives, but provided comments primarily related to their jurisdiction within the project corridor. Amtrak provided detailed comments related to different alternatives, but did not express support for a specific alternative. The U.S. Coast Guard and U.S. Department of Interior, Office of Environmental Policy and Compliance sent letters stating they did not have any comments on the EIR/EIS. The USFWS did not submit a comment letter on the Merced to Fresno Section Draft EIR/EIS.

7.2.4 State Agencies

The California State Department of Corrections and Rehabilitation is concerned about the BNSF Alternative with either the Ave 24 Wye or the Ave 21 Wye and the Hybrid Alternative with the Ave 24 Wye because of encroachments on their facilities from these alternatives. The University of California-Merced supports the UPRR/SR 99 Alternative because of the reduced impacts and noted that the BNSF Alternative would have greater impacts than other alternatives on lands managed by their department, with the greatest impacts occurring under the Le Grand design option. Other state departments that commented, including the Department of Conservation, Water Resources Control Board, Caltrans, Department of Resources Recycling and Recovery, Native American Heritage Commission, State Lands Commission, and Public Utilities Commission, did not express preference for specific alternatives.

7.2.5 Regional and Other Public Agencies

The Madera County Economic Development Commission supports the BNSF Alternative and opposes the UPRR/SR 99 Alternative, but requested that a below-grade option for the UPRR/SR 99 Alternative be considered. The 25 other regional and public agencies submitting comments, most of which were water districts, school districts, and irrigation districts, did not state a preference for a specific alternative.

7.2.6 Businesses

Comments were received from 73 different businesses, and most comments focused on impacts on their property and/or their business. Businesses whose property would be affected by the project typically stated preference for the alternative that would avoid their property. Businesses that stated a position for the UPRR/SR 99 Alternative or against the BNSF Alternative included Agriland Farming Company, Cavallo Ranches, Wells Nut Farm Inc., Olam Farming, Kelsey Ranch, Lazy K Ranch, Shasky Farms, Santa Fe Farms, and Swanson Farms. Businesses for the BNSF Alternative or against the UPRR/SR 99 Alternative included Azteca Milling, Fagundes Brothers Dairy, George Dakovich & Son Inc., Ghosoph Real Estate, Jurkovich Doak Department, KB Home, Rancho Calera LLC, Ready Roast Nut Company, an unidentified business owner on Santa Fe Drive, an unidentified manufacturing facility, Valley Venture LLC, and the Vineyard Restaurant. Two businesses stated that they opposed the Hybrid Alternative. These businesses were Cavallo Ranches and an unidentified manufacturing facility. One business, T-Mobile, noted that their Fresno switching office would be impacted by all alternatives and that relocation of this facility would be extremely disruptive and costly. They requested that the alternatives be modified to avoid their Fresno switching office.

Several businesses were concerned about the loss of jobs if they were acquired and could not be relocated, and about impacts on the economy due to the loss of jobs, businesses, and tax revenue for the local jurisdictions. Some businesses were concerned about impacts affecting them during operation and construction, such as loss of access, noise, dust, and visual changes. Other businesses believe the project would benefit the economy.

Twenty-two farms or ranches expressed concern about impacts on agriculture and farmlands, such as their ability to comply with district water quality board regulations and state pesticide and drift regulations with the project, the cost of changes to irrigation systems, the cost of relocating livestock, and the impacts of noise, vibration, dust, and stray voltage on livestock.

UPRR provided comments primarily related to their right-of-way and uses proposed in and adjacent to it. They stated that their entire right-of-way must be preserved, and the project should not be located within that right-of-way.

7.2.7 Organizations

Comments were received from 43 special interest or community organizations, including groups representing environmental interests or farming interests, groups organized in response to this project, and groups representing other organized stakeholder groups. Organizations representing environmental interests generally supported the UPRR/SR 99 Alternative because of its reduced impacts on the natural environment, although one group, the Planning and Conservation League, supported moving the project to the I-5 corridor. Some were also concerned about sprawl, induced growth, and cumulative impacts. Organizations supporting farming interests, including the California Farm Bureau Federation; the Farm Bureaus for Fresno, Madera, Merced and Kings counties; associations for growers and producers; and farmland trusts, generally supported the UPRR/SR 99 Alternative because of the reduced impacts on farmlands. Some of these groups felt the analysis of impacts on farmland was inadequate and suggested an alternative that followed I-5 or the California Aqueduct in order to minimize impacts on farmland.

Organizations formed in response to the HST Project either generally supported or opposed the project and did not express an alternative preference or supported the UPRR/SR 99 Alternative. Some groups supported the project for the economic benefits, while others were concerned about funding. One

particular grassroots effort, named "Madera Friends of High-Speed Rail," sent in 22 submittals with letters from 1,113 individuals, each supporting the UPRR/SR 99 Alternative. Themes expressing support for this alternative stated that it would grade-separate the existing track through Madera; protect farmlands; provide connectivity, economic opportunities, and jobs in Madera; eliminate blight along the "E" Street corridor through the city; and with mitigation could improve the City of Madera. Several groups commented on the Merced and Fresno HST stations, such as the Californians for High-Speed Rail, which asked for the consideration of satellite parking facilities at the Merced and Fresno stations. Other organizations not in the groups above provided comments focused on specific types of impacts, such as jobs or public health and safety, related to all alternatives but did not generally support any one alternative.

7.3 Alternatives Considered

The Authority, in cooperation with FRA, began the environmental review process for the Merced to Fresno Section of the California HST Project, which included a Notice of Intent (published in 2008) and public scoping process in early 2009.

The potential alternatives identified during scoping included five primary north-south routes between Merced and Fresno, four station alternatives for the Merced station, two station alternatives in Chowchilla and Madera, and another six alternatives for the Fresno station. Potential alternatives also considered five options for the west connection (i.e., the wye) from the San Jose to Merced Section. These potential alternatives were developed using HST system performance criteria, and potential effects of the proposed alternatives on the natural and human environment were considered. Once components were screened to lowest effects and highest HST performance, a Preliminary Alternatives Analysis compared the alternatives against each other and documented the results. While the Preliminary Alternatives Analysis process considered multiple criteria, the screening emphasized the project objective to maximize the use of existing transportation corridors and available rights-of-way, to the extent feasible.

The Preliminary Alternatives Analysis identified the following elements to be carried forward, which are included in the Merced to Fresno Section EIR/EIS:

- Two rail alignments (the UPRR/SR 99 and the BNSF alternatives)
- Two wye options (Ave 24 Wye and Ave 21 Wye)
- Five HMF sites (Castle Commerce Center, Harris-DeJager, Fagundes, Gordon-Shaw, and Kojima Development)
- One station site in Downtown Merced (Downtown Merced Station)
- Two Downtown Fresno Station alternatives (Mariposa Street Station and Kern Street Station)

Later, during the Supplemental Alternatives Analysis (Authority and FRA 2010b), the Authority developed a Hybrid Alternative to take better advantage of existing transportation corridors, while reducing impacts on Chowchilla and Downtown Madera. This alternative was carried forward and analyzed in the Merced to Fresno Section EIR/EISs. Figure 7-1 illustrates the HST alternatives and the HMF sites evaluated in the Merced to Fresno Section EIR/EIS. Those alternatives that were not carried forward had greater direct and indirect environmental impacts and the potential to cause undesirable growth patterns over those alternatives that closely follow existing transportation corridors. Please see Section 2.3 of the Merced to Fresno Section EIR/EIS for a discussion of the potential alternatives considered and rejected.

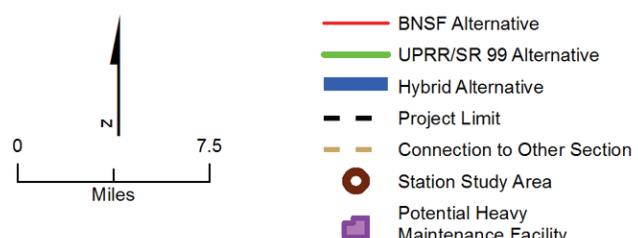
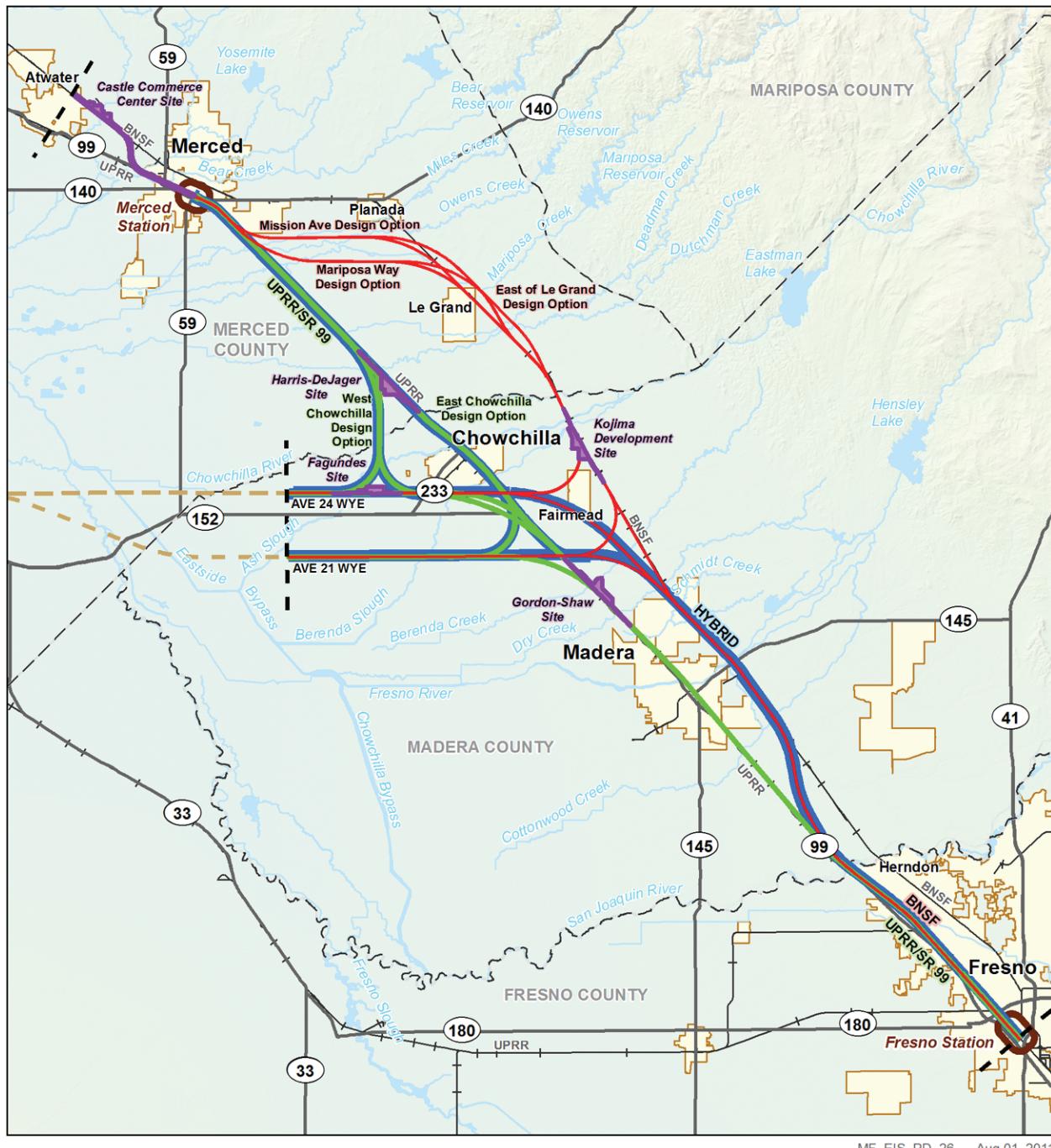


Figure 7-1
HST Alternatives and HMF Sites Carried Forward for Further Study

Another project element that was added for further consideration after the Preliminary Alternatives Analysis was the SR 152 Wye (see Figure 7-2). Although this wye option was originally eliminated from detailed study in the Preliminary Alternatives Analysis (Authority and FRA 2010a), based on additional input from regulatory agencies (EPA and USACE), it is carried forward for evaluation in the San Jose to Merced Section EIR/EIS, which will be published following this Merced to Fresno Section EIR/EIS. Design refinements to this connection would avoid many of the impacts that led to its original dismissal from consideration. This Merced to Fresno Section EIR/EIS does not analyze the SR 152 Wye. All three east-west alignments (i.e., Ave 24 Wye, Ave 21 Wye, and SR 152 Wye) will be carried forward for additional study and consideration as part of the San Jose to Merced EIR/EIS process. All three wye options connect to all three Merced to Fresno alignment alternatives.

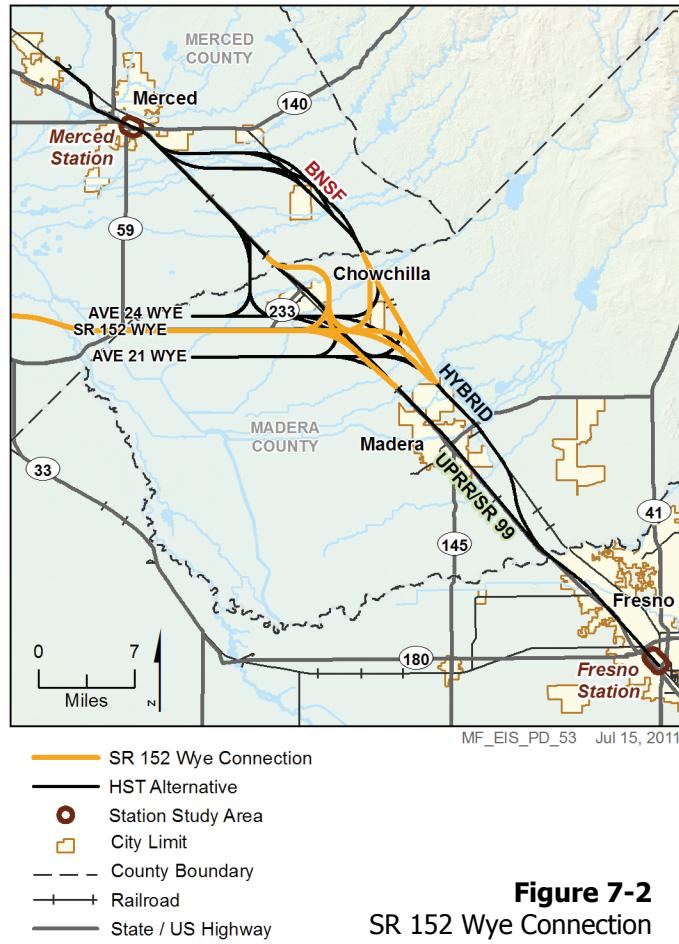


Figure 7-2

SR 152 Wye Connection

7.4 Alternatives Evaluation – North-South Alignment

7.4.1 Environmental Impacts

As a result of the analysis provided in this EIR/EIS and public comments on the Draft EIR/EIS, the Authority and FRA determined the Preferred Alternative provides a balance of important environmental factors that differentiate the alternatives and consider input from stakeholders. Generally, environmental issues identified are grouped into natural resources impacts, community impacts (including transportation infrastructure), and effects during construction. The Authority and FRA considered the intensity and context of impacts before applying mitigation. Tables 7-1 and 7-2 summarize impacts **before mitigation** in each of these groupings, respectively. The color coding signifies a relative range of impacts that would be substantially higher (represented by red), average (yellow), or substantially lower (green). The color codes offered the resource specialist a method of integrating a professional, qualitative judgment with the quantity of impacts. For instance, when the quality of the resources affected varied more by habitat value than by acres, the color code reflects the value of impacts applied using professional judgment rather than only quantities.

Only those resources that would have significant effects and would differentiate alternatives are included in this comparison. The following resources were not included in this discussion because either the effects were less than significant, or the effects were common among the alternatives considered: hydrology, public utilities and energy, geology, soils and seismicity, hazardous materials, electromagnetic fields and interference, station planning, land use and development, and cultural and paleontological resources. Each resource section in Chapter 3.0 contains mitigation measures for significant impacts and discusses whether the impact remains significant after mitigation.

7.4.1.1 Natural Resources

Table 7-1 demonstrates that the BNSF Alternative would have greater impacts on high-value natural resources than the UPRR/SR 99 and the Hybrid alternatives. A short summary describing the relative differences of natural resource impacts follows for each category of natural resources.

Table 7-1
Natural Resources Impacts in the Merced to Fresno Section

Resource Categories ^a	Range of Natural Resource Impacts by HST Alternative ^b			Explanation of Measured Impact
	UPRR/ SR 99 Alternative	Hybrid Alternative	BNSF Alternative	
Biological Resources-Habitat	170/658 to 189/844	222/724 to 238/935	284/659 to 383/898	Direct Permanent Conversion of Habitat with Potential to Support Special-status Plant Species (acres)/Special-status Wildlife Species (acres)
Biological Resources-Waters of the U.S.	31 to 35	32 to 34	26 to 33	Direct Impacts on Waters of the U.S. (aquatic communities) (acres) ^c
Biological Resources-Vernal Pools	1 to 2	2 to 3	12 to 16	Direct Impacts on Vernal Pools (acres) ^c
Biological Resources-Seasonal Wetlands	1 to 1	1 to 1	2	Direct Impacts on Other Seasonal Wetlands (acres) ^c
Biological Resources-Riparian Communities	5 to 14	4 to 11	5 to 11	Direct Impacts on Great Valley Mixed Riparian and Other Riparian Communities (acres)
Biological Resources-Conservation Areas	1	1	2	Number of Conservation Areas Affected (Camp Pashayan, Great Valley Mitigation Bank)
Biological Resources-Wildlife Crossings	3.6 to 4.1	3.6 to 4.1	6.1 to 6.8	Miles of Wildlife Crossings Traversed within Eastman Lake-Bear Creek ECA and Modeled Wildlife Corridors (including Berenda Slough)
Notes:				
	Substantially higher impact			
	Average impact			
	Substantially lower impact			

^a Biological resources effects are based on habitat-level evaluation because surveys were only conducted on properties where access was permitted. Habitat-level evaluations are conservative because they present potentially suitable habitat.

^b When a single value is presented for the range of impacts, there is no appreciable difference between the project component combinations for the alternative.

^c All aquatic communities, vernal pools, and seasonal wetlands, are assumed to be federally jurisdictional waters (Waters of the US) in the EIR/EIS and were evaluated as such by USACE and EPA under Section 404(b)(1) of the Clean Water Act.

All alternatives would have a substantial effect on suitable **habitat for special-status species**. Effects would either be direct during site preparation and construction or indirect through runoff, noise, motion, startle, and ongoing facility operation. The degree of direct and indirect effects would be greatest with the BNSF Alternative because it would affect significant acreages of suitable habitat within the construction footprint. Beyond the specific acreages are habitat types, or mix, within those direct and indirect effects. The BNSF Alternative would also have a more profound impact on species that inhabit hydraulically dependent habitats such as vernal pools. The footprints of the UPRR/SR 99 and Hybrid alternatives contain less acreage of similar riparian-wetland communities, although both would have impacts similar to the BNSF Alternative on special-status species habitat.

All **aquatic communities, vernal pools, and seasonal wetlands** are assumed to be federally jurisdictional waters in the EIR/EIS and were evaluated as such by USACE and EPA under Section 404(b)(1) of the Clean Water Act. All alternatives would have substantial effects on these resources. The BNSF Alternative would affect the most acreage because its location is more in the upstream gradient of the local watersheds. In addition to the larger impact acreage for the BNSF Alternative, it also would cross more aquatic resources/drainages at key locations, such as within the Eastman Lake-Bear Creek Essential Connectivity Area (ECA) and at locations where there are other complementary regional resources such as vernal pools. The UPRR/SR 99 and Hybrid alternatives would affect less acreage, and although the UPRR/SR 99 Alternative would affect slightly fewer acres than the Hybrid Alternative, they both would affect similar resources in proximity. The lower acreage affected would mean less impact overall (since they are disturbed aquatic features) and thus would have less need for mitigation. Vernal pools and seasonal wetlands are complex, sensitive habitats with the largest potential for impacts among the habitat types analyzed. Indirect effects outside the construction footprint are magnified through changes in local micro-watersheds, which maintain suitable inundation levels for the lifecycles of vernal pool fauna. Due to their inherent biotic and abiotic sensitivity, vernal pools are a challenge to mitigate and/or re-establish for their full functions and values. The UPRR/SR 99 Alternative and Hybrid Alternative would affect a substantially lower number of acres of vernal pools and seasonal wetlands than the BNSF Alternative.

Riparian communities include the broader linear drainages dominated by Great Valley mixed riparian and other riparian plant communities. These plant communities include all vegetated portions of the channel from the median high-water mark to the outer edges of the natural watercourses. Riparian habitat is frequently used as linear dispersal corridors that funnel wildlife movement through an otherwise fragmented landscape. The range of acreages representative of the direct and indirect effects is similar through all HST alternatives.

All HST alternatives would have some impact on **conservation areas**. The BNSF Alternative would traverse a portion of the Great Valley Conservation Bank and parallel another reserve in development; the UPRR/SR 99 and Hybrid alternatives would not. Each of the alternatives would traverse Camp Pashayan. The Great Valley Conservation Bank provides direct mitigation opportunities for impacts on San Joaquin kit fox, California tiger salamander, western burrowing owl, Swainson's hawk, and three vernal pool branchiopods (conservancy fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp). Project impacts on mitigation banks are typically mitigated at higher ratios to offset direct and indirect effects; this would increase mitigation requirements. The BNSF Alternative would have the largest effect on biological conservation areas.

Project design features for all alternatives include dedicated **wildlife crossings** and other features, such as overcrossings, culverts, spans, and bridges that could be used by wildlife to cross the HST tracks at at-grade locations. Wildlife could move freely under elevated track portions. The existing landscape already restricts wildlife movement, including within the Eastman Lake-Bear Creek ECA. The BNSF Alternative would have the longest potential barrier across this linkage, as well as the most watercourses/riparian corridor crossings.

7.4.1.2 Community Resources

As shown on Table 7-2, the UPRR/SR 99 Alternative would result in the highest level of community impacts and the Hybrid Alternative would result in the least. The UPRR/SR 99 Alternative would have 5 more miles of trackway within the urbanized area than either the BNSF or Hybrid alternatives. Notably, all alternatives would equally affect the Merced and Fresno areas, but these communities also would realize the greatest community benefits; therefore, the differentiators among the alternatives are related to effects on the communities of Le Grand, Fairmead, and Madera Acres and the cities of Chowchilla and Madera. The UPRR/SR 99 Alternative generally would affect the City of Chowchilla and community of Fairmead, but would have greater impact on the City of Madera. The BNSF Alternative generally would affect Le Grand and Madera Acres. Finally, the advantage of the Hybrid Alternative is that it would avoid most communities, except that it shares the effects on Madera Acres with the BNSF Alternative and it would pass south of, but adjacent to, Fairmead. A short summary describing the relative differences in operation and construction community impacts follows for each category of community resource.

Table 7-2
Community Resource Impacts in the Merced to Fresno Section

Resource Categories	Range of Community Impacts by HST Alternative ^a			Explanation of Measured Impact
	UPRR/ SR 99 Alternative	Hybrid Alternative	BNSF Alternative	
Operation Community Impacts				
Acquisitions	193 to 228	186 to 213	215 to 244	Total Number of Residential Displacements
Acquisitions	284 to 295	212 to 226	217 to 237	Total Number of Business/Institution Displacements
Noise and Vibration	1,024 to 1,149	509 to 520	549 to 851	Number of Residences Affected by Severe Noise Impacts
Noise and Vibration	7 to 8	2	2	Number of Institutional Facilities Affected by Severe Noise Impacts –
Transportation	19 to 28	30 to 36	28 to 42	Number of Permanent Road Closures
Transportation				Impediments to Future Transportation Infrastructure ^b
State Facilities	0	0 to 1	0 to 1	Conflicts with Correctional Facilities
Community Resources	17.4 to 19.2	12 to 15.6	12 to 15.5	Linear Miles within Urban Limits
Agricultural Lands	262 to 314	285 to 300	318 to 473	Prime Farmlands Affected (acres)
Agricultural Lands	742 to 849	973 to 1,142	967 to 1,165	Important Farmlands ^c Affected (acres)
Agricultural Lands	1 to 6	1 to 4	1 to 3	Number of Dairies Affected (moderate and severe impacts)
Parks, Recreation and Open Space	3	1	1	Number of Parks Affected by Full or Partial Acquisition During Operations

Resource Categories	Range of Community Impacts by HST Alternative ^a			Explanation of Measured Impact
	UPRR/ SR 99 Alternative	Hybrid Alternative	BNSF Alternative	
Visual/Aesthetic Resources	3	2	5	Number of Landscape Units with Decreased Visual Quality.
Visual/Aesthetic Resources	32 to 41	15 to 17	21 to 24	Miles of Elevated Track
Construction Community Impacts				
Parks, Recreation and Open Space	4 to 5	1	1	Number of Parks Affected by Full or Partial Closure During Construction Period
Schools	16	13	13 to 14	Number of Schools Within 0.25 Miles of HST Alignment
Biological Resources	NA	NA	NA	See footnote d.
Air Quality	Highest	Lowest	Mid-range	Construction-related Pollutant Emissions
Notes:				
 Substantially higher impact  Average impact  Substantially lower impact				

^a When a single value is presented for the range of impacts, there is no appreciable difference between the project component combinations for the alternative.

^b This criterion evaluates how the HST alternative would impede future transportation facility planning. For instance, elevated guideways may impede future overcrossings. This measure is not quantitative.

^c Important Farmlands includes Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance.

^d NA (not applicable) means that acreage of impact cannot be provided since this would result in double counting for some temporary impacts. Measured impacts include Temporary Disturbance of Habitat with Potential to Support Special-status Plant Species and Wildlife Species, Temporary Disturbance of Vernal Pools and Other Seasonal Wetlands, and Temporary Disturbance of Great Valley Mixed Riparian and other Riparian Communities.

Property acquisition of residential units would be similar among the alternatives; however, the UPRR/SR 99 Alternative would have substantially higher nonresidential displacements (50 or more than the BNSF or Hybrid alternatives). This highlights the effects on the business and industrial properties that would be affected because the UPRR/SR 99 Alternative would travel through the Madera and Chowchilla industrial development areas. The BNSF and Hybrid alternatives would have similar impacts, with the BNSF Alternative resulting in approximately 10 to 15 more nonresidential displacements than the Hybrid Alternative.

All HST alternatives would have **noise impacts**. The highest number of moderate and severe noise impacts would be associated with the UPRR/SR 99 Alternative. The number of severe noise impacts under the BNSF and Hybrid alternatives would be substantially fewer than the number of severe impacts associated with the UPRR/SR 99 Alternative. The BNSF and Hybrid alternatives would have nearly the same number of affected sensitive receptors.

All HST alternatives would result in **transportation impacts**. The BNSF and Hybrid alternatives both would provide a benefit to Madera Acres by providing a grade-separated roadway crossing over the existing BNSF railroad; the new crossing over both the BNSF railroad and HST guideway would improve

circulation for this portion of the community. The UPRR/SR 99 Alternative would be elevated in Madera as the only prudent profile to avoid conflicts with major arterials and existing freeway structures at either end of the city. However, this elevated design proposal would not alleviate existing transportation conflicts between the UPRR railroad track and local circulation. Due to the proximity of the UPRR/SR 99 Alternative, future grade separations would not be possible for the City of Madera without the high cost of trenching under both the UPRR railroad and the HST Project. An elevated crossing would not be able to cross the UPRR railroad and clear the proposed UPRR/SR 99 Alternative elevated HST guideway without substantial damage to the community and a high cost. Because the BNSF and Hybrid alternatives would avoid urban areas that require grade separation over multiple roadways to minimize impacts, these alternatives would require fewer modifications to the state highway system than the UPRR/SR 99 Alternative would. The Hybrid Alternative would require more local road closures than the UPRR/SR 99 Alternative, but could have more or fewer than the BNSF Alternative depending on the design option and wye. The road closures would mostly affect rural areas where there are other roadway options available to meet circulation demands and where there would be a smaller possibility of congestion issues. The UPRR/SR 99 Alternative road closures, although fewer in number, include more roadways in the urbanized areas, which may result in higher community effects.

The alternatives would have differing levels of impact on **agriculture**. The BNSF Alternative would require crossing and potentially severing more farmlands and dairies than the other HST alternatives because it traverses large areas that do not parallel transportation corridors. It also would have the highest impact on Prime farmlands (318 to 473 acres), whereas the other two alternatives would have similar levels of impact (262 to 314 acres for the UPRR/SR 99 Alternative and 285 to 300 acres for the Hybrid Alternative). The UPRR/SR 99 Alternative would require nearly as much Important Farmland because more adjacent infrastructure would need to be modified, thus extending the footprint into adjacent farmlands. The UPRR/SR 99 Alternative with the West Chowchilla design option would reduce the modifications to the SR 99 infrastructure, and it represents the lower range of agricultural land conversion for the UPRR/SR 99 Alternative. Although the Hybrid Alternative would not be as long as the BNSF Alternative, it would be longer than the UPRR/SR 99 Alternative, and, therefore, the impacts on Important Farmland would be similar to the BNSF Alternative. Alternatives that do not follow an existing transportation corridor would sever more farmlands than alternatives that closely follow existing transportation corridors. Severance would be greatest at the northern and southern ends of the BNSF Alternative, the southern end of the Hybrid Alternative, all wye transitions, and the UPRR/SR 99 Alternative with the West Chowchilla design option.

Visual resources such as viewsheds and aesthetic corridors cross over both urban and rural landscapes. The Hybrid Alternative would result in the least impact on visual quality of aesthetic features and corridors. Additionally, as proposed, the Hybrid Alternative would have the least elevated guideway, and thus would disrupt the visual terrain less than either the UPRR/SR 99 Alternative or the BNSF Alternative. While the UPRR/SR 99 Alternative has the most elevated guideway, the BNSF Alternative actually would degrade the visual quality in more sensitive view corridors than the UPRR/SR 99 and the Hybrid alternatives.

All HST alternatives would affect **park resources**. The BNSF Alternative and the Hybrid Alternative would result in the use to four Section 4(f) resources, including one park and recreation resource and three historic resources. This is preferable to the UPRR/SR 99 Alternative, which would affect the same resources as well as others found in Madera, for a use of eight Section 4(f) resources, including four park and recreation resources and four cultural resources. There are no feasible or prudent HST alternatives that would address the project need without the use of Section 4(f) resources.

Construction is considered to be a temporary effect. The HST Project construction period would last for approximately 4 to 5 years of heavy construction and another 2 years of track testing. Construction effects on natural resources can be minimized by implementing best management practices (BMPs) to avoid affecting water quality and to limit work during sensitive periods. In addition, relocation of species and other forms of mitigation can be performed before construction commences, further minimizing effects on related species. Construction effects on community resources include dust, noise, closing access to parks, re-routing of circulation and diversion of traffic that can lead to reduced business

activity, and air quality effects. These effects can concern businesses, result in health concerns for school children and others suffering respiratory illnesses, result in frustration, and lower the community quality during this construction period.

7.4.2 Capital Costs

The Hybrid Alternative would have substantially lower capital costs than the UPRR/SR 99 Alternative and the BNSF Alternative. The estimated cost of the Hybrid Alternative is about \$450 million less than the BNSF Alternative and over \$1 billion less than the UPRR/SR 99 Alternative. Overall, in balancing the effects on the natural and community resources, the Hybrid Alternative is the least expensive because it represents the fewest constructability issues. This is because the Hybrid Alternative is shorter than the BNSF Alternative and has less elevated guideway and fewer impacts on adjacent infrastructure than the UPRR/SR 99 Alternative.

The Preferred Alternative is estimated to cost between \$3.8 billion to \$4.8 billion (in 2010 dollars). Cost estimates within that range vary depending on the wye option that is ultimately selected.

7.4.3 Constructability Issues

The UPRR/SR 99 Alternative would have the most miles of HST track in urbanized areas, followed by the BNSF and the Hybrid alternatives, which would have similar lengths of track in urbanized area. However, in addition to the linear miles, the UPRR/SR 99 Alternative would require 32 to 41 miles of elevated guideway in urbanized areas to avoid conflicts with transportation circulation. The UPRR/SR 99 Alternative must remain elevated through Downtown Madera because an at-grade option would require multiple roadway over- and under-crossings and even closure of some major arterials in the congested downtown area. These effects from an at-grade profile along the UPRR/SR 99 Alternative would cause a larger division of the Madera community than the elevated profile would cause. The UPRR/SR 99 Alternative could have almost double the amount of elevated guideway as the BNSF Alternative; the Hybrid Alternative would have the least elevated guideway with only 15 to 17 miles. Construction of an elevated guideway requires large amounts of concrete, which increases air quality impacts during construction. The Hybrid Alternative would have the least severe air quality impacts during construction because it is shorter than the other alternatives (the UPRR/SR 99 Alternative with the West Chowchilla design option and Ave 24 Wye is similar in length to the Hybrid Alternative) and would have the least elevated structure, which would require less construction equipment and lower emissions from that equipment.

The BNSF Alternative also would pose more elevated structure constructability issues in Madera Acres compared to the Hybrid Alternative. The alignments for the BNSF and Hybrid alternatives would pass through a constrained urban community in Madera Acres. The wye connection for the BNSF Alternative would occur in this area, requiring an elevated crossover of the turnout tracks adjacent to an at-grade track profile in a residential area. On the other hand, the Hybrid Alternative at this location would consist only of two at-grade tracks because the wye connection for the alternative is farther to the north and west along the alignment.

All alternatives would cross SR 99 and existing railroads. Interaction with other infrastructure would result in complex construction and longer duration affecting the adjacent community. The UPRR/SR 99 and BNSF alternatives would result in from 6 to 10 railroad crossings; the Hybrid Alternative would have from 4 to 6 crossings. The UPRR/SR 99 Alternative would result in modifications to eight Caltrans facilities, whereas the Hybrid and BNSF alternatives would result in five and three modifications, respectively. The Hybrid Alternative, however, would cross SR 99 and the UPRR railway at a favorable crossing angle, making it easier to construct than a narrower crossing angle. The BNSF Alternative crossings of SR 99 and the BNSF railroad at Mission Avenue and/or Mariposa Avenue, as well as the UPRR/SR 99 Alternative crossings near Chowchilla and Fairmead, are at "small skewed" angles, which would result in longer crossings that are difficult and more costly to construct.

Main construction access routes for all alternatives would depend heavily on SR 99. Therefore, the UPRR/SR 99 Alternative generally would be closest to the main access route. The Hybrid Alternative generally would be either adjacent to or within 2 miles of SR 99, whereas the BNSF Alternative would be nearly 5 miles away from SR 99 for the northern portion of its alignment (from approximately just south of Merced to south of Madera).

7.4.4 Ridership and Revenue/Travel Times/Travel Conditions

Ridership forecasts are similar for all alternatives in the Merced to Fresno Section. The Hybrid Alternative offers the second best travel time, taking only 30 seconds longer between San Francisco and Los Angeles, a minute more between Merced and Fresno, and the same amount of time between San Francisco and Merced, compared to the UPRR/SR 99 Alternative. The UPRR/SR 99 Alternative was found to optimize travel time and minimize environmental impacts at the high cost of a more elevated profile and potentially more community impacts than the other alternatives. The BNSF Alternative would have the same travel time as the Hybrid Alternative between San Francisco and Los Angeles, but otherwise it would take as much as 4 minutes longer than the other two alternatives.

7.5 Station Locations

There is only one station considered for Merced, the Downtown Merced Station (see Figure 7-3). Developed through multiple meetings and discussions with the City of Merced, this station is consistent with the City's future land use plans for the downtown area and the intent to strengthen connectivity with the City's transit center. The Downtown Merced Station would be between Martin Luther King Jr. Way to the northwest and G Street to the southeast. The station would be accessible from both sides of the UPRR, but the primary station house would front 16th Street. The closest access to the parking facility from the SR 99 freeway would be R Street, which has a full interchange with the freeway. The site proposal includes a parking structure that would have the potential for up to six levels with a capacity of approximately 2,250 cars and an approximate height of 50 feet.

There are two station sites being considered for the Fresno Station, the Mariposa Street Station (Preferred Alternative) and the Kern Street Station alternatives (see Figures 7-4 and 7-5, respectively). The Mariposa Street Station would be centered on Mariposa Street and bordered by Fresno Street on the north, Tulare Street on the south, H Street on the east, and G Street on the west. Landmarks in the vicinity of the station include the Fulton Mall and Chukchansi Park to the east and Historic Chinatown to the west. The majority of station facilities would be located east of the existing UPRR tracks. The station site includes the station, bus transit center, surface parking lots, and kiss-and-ride accommodations. A new intermodal facility would be included in the station footprint. Among other uses, the intermodal facility would accommodate the Greyhound facilities and services that would be relocated and integrated into the site plan. The site proposal includes the potential for up to three parking structures and surface parking with a capacity of approximately 4,800 cars.

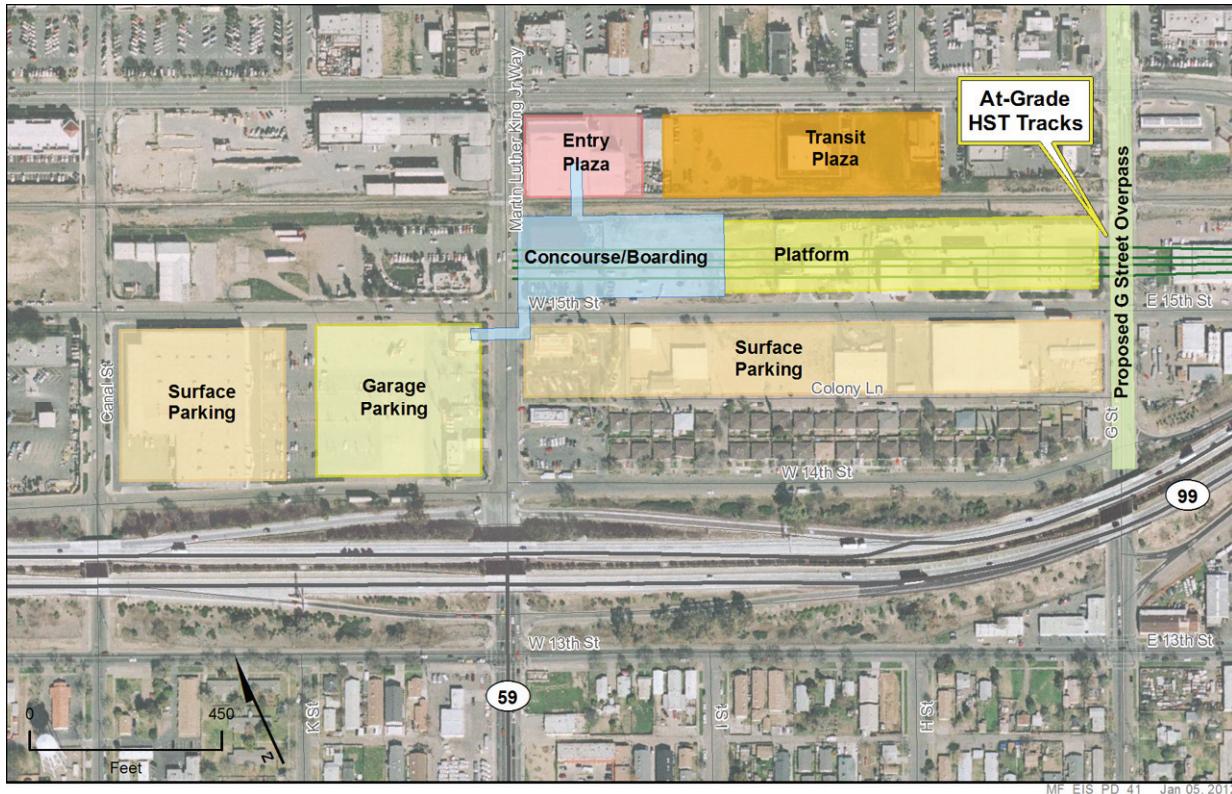


Figure 7-3
Downtown Merced Station Location

The City of Fresno prepared the draft *Fulton Corridor Specific Plan* and the draft *Downtown Neighborhoods Community Plan* (City of Fresno 2011a,b, respectively), both of which cover the area surrounding the HST station. The plans were developed to revitalize the downtown area through higher densities and infill development. The plans reference the Downtown Fresno Station centered at Mariposa Street. The City of Fresno views the HST station centered along Mariposa Street as an important element acting as a gateway to the downtown area by connecting the civic plaza, which contains county and city buildings as well as Fulton Mall. The *Fulton Corridor Specific Plan* includes the following references to the HST station:

- Create a seamless connection between HST station and Downtown Fresno.
- Establish a stronger axial connection between the County Courthouse and the proposed HST station along the Mariposa corridor/Plaza.
- Align with the proposed Mariposa Plaza open space.

The plans describe the proposed Mariposa Street HST station location, noting that "The terminal building (would) function as the western terminus of a City Hall to HST station axis. The station (would) terminate at Mariposa Street and be designed as a 'front door' to the Downtown with a façade that can be seen from the County Courthouse." Additionally, City of Fresno's Transportation Master Plan includes relocating the city's transit center across from the Downtown Fresno HST Station and specifies that the Mariposa Street Station Alternative would better serve the planned transit improvements for the downtown area.

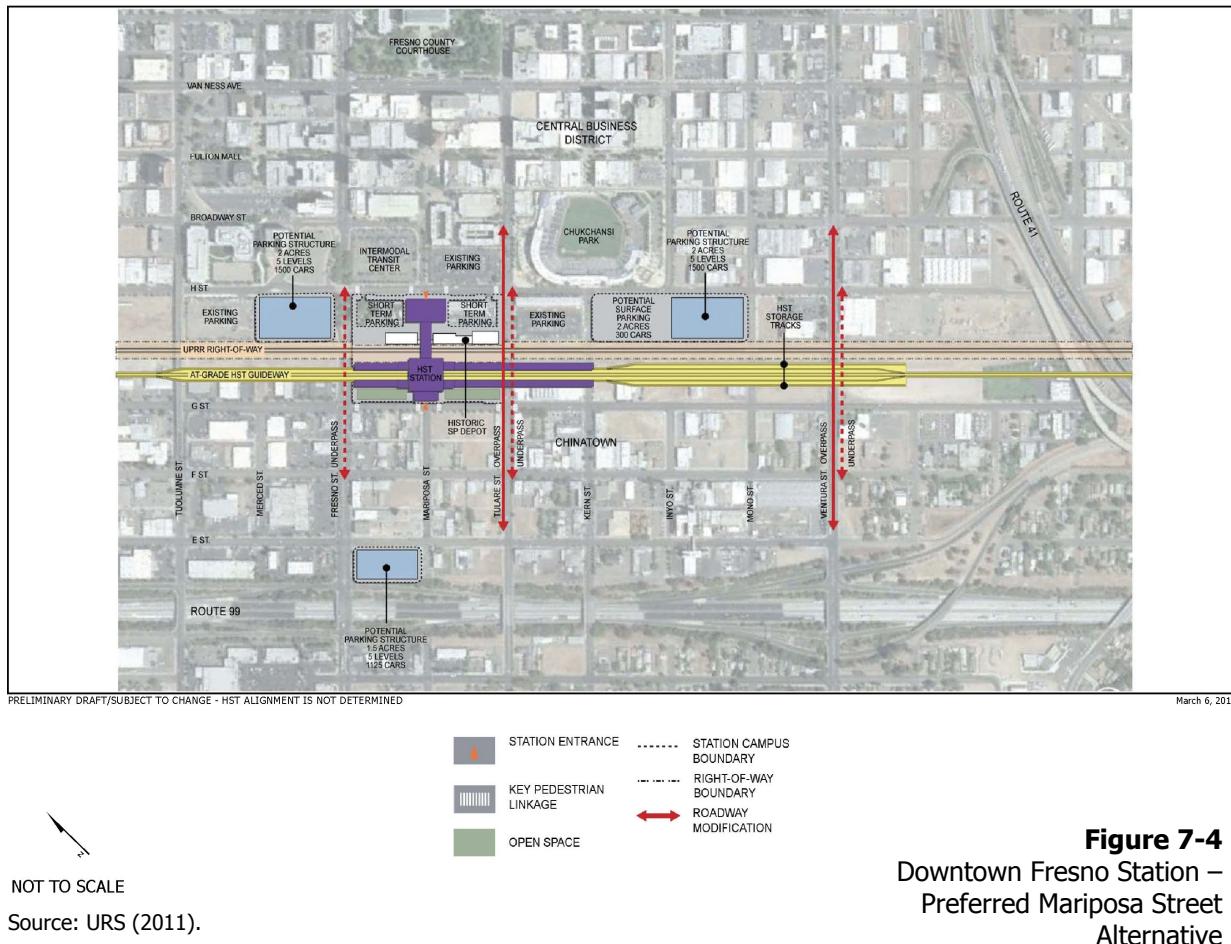


Figure 7-4
Downtown Fresno Station –
Preferred Mariposa Street
Alternative

The Kern Street Station Alternative for the HST station is also situated in Downtown Fresno and would be centered on Kern Street between Tulare Street and Inyo Street. The station building would be approximately 75,000 square feet, with a maximum height of approximately 64 feet. The station building would have two levels housing the same facilities as the Mariposa Street Station Alternative (i.e., UPRR tracks, HST tracks, mezzanine, and station office). The approximately 18.5-acre site would include 13 acres dedicated to the station, bus transit center, short-term parking, and kiss-and-ride accommodations. Two of the 3 potential parking structures would each sit on 2 acres and each would have a capacity of approximately 1,500 cars. The third structure would have a slightly smaller footprint (1.5 acres) and a capacity of approximately 1,100 cars. Like the Mariposa Street Station Alternative, the majority of station facilities under the Kern Street Station Alternative would be sited east of the existing UPRR tracks.

In the environmental evaluation for the Fresno station alternatives, the environmental impacts were similar. Both stations would affect a historic structure eligible or already on the National Register of Historic Places. Other effects include noise that would be mitigated, as well as temporary impacts on businesses and transportation circulation during construction. However, due to the City's planning and the orientation of the Downtown Fresno City Center, the preferred Mariposa Street Station Alternative offers substantially more opportunities for transit-oriented development.

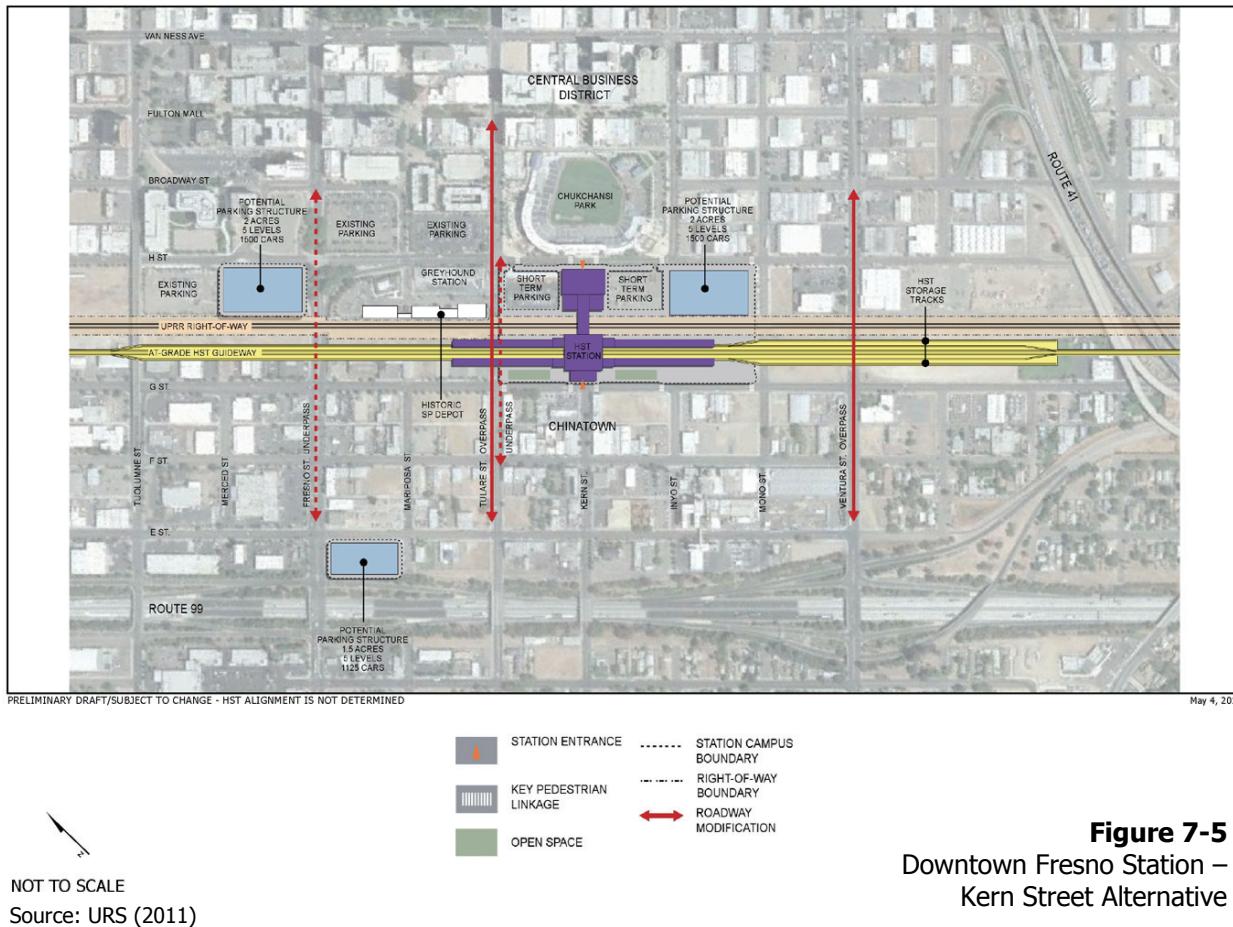


Figure 7-5
Downtown Fresno Station –
Kern Street Alternative

7.6 Regulatory Considerations

The Authority and FRA are working closely with federal, state, and regional agencies to meet regulatory requirements by refining the Merced to Fresno Section alternatives to avoid and minimize impacts and, where necessary, to reach agreement on mitigation measures for impacts that cannot be avoided. Two important regulatory requirements that must be addressed are Section 404 of the Clean Water Act (CWA) (33 U.S.C. § 1344) (Section 404) and Section 14 of the Rivers and Harbors Act (33 U.S.C. § 408) (Section 408). Under these requirements, USACE, in consultation with EPA, is authorized to make permit decisions regarding the discharge of dredged or fill material into waters of the U.S. and alterations or modifications to existing USACE projects. In order to facilitate this decision-making, the Authority, FRA, USACE, and EPA entered into a National Environmental Policy Act (NEPA)/Section 404/408 Integration Process Memorandum of Understanding (MOU) (Authority et al. 2010), which outlines three major checkpoints in the integration of the NEPA and Section 404/408 processes. Each checkpoint consists of the submittal of technical data and studies by the Authority and FRA to USACE and EPA for review and consideration prior to issuing a formal written agency response. The Authority and FRA coordinated with USACE and EPA and prepared materials for each checkpoint, as described below:

- The first of these submittals is Checkpoint A, which involves preparing a project purpose statement that duly serves NEPA and Section 404 requirements. EPA concurred on the Merced to Fresno Section purpose and need on January 20, 2011, and USACE concurred on the purpose and need on February 2, 2011, to satisfy Checkpoint A.

- The second set of submittals was prepared for Checkpoint B, which is required to screen and reduce the potential alternatives to an appropriate range of “reasonable” and “practicable”¹ alternatives using the best available information. On June 14 and June 24, 2011, respectively, USACE and EPA concurred on the range of alternatives to be carried forward in the Merced to Fresno Section EIR/EIS, with the exception of the Western Madera (A3) Alternative and the State Route (SR) 152 Wye connection alternative. The Authority provided USACE and EPA the “Merced to Fresno Section: Western Madera (A3) Alternative Screening Memorandum Point 1: Waters of the United States Impacts Analysis” on January 27, 2012. USACE concurred with the dismissal of the Western Madera (A3) Alternative on February 21, 2012. The SR 152 Wye connection will be addressed in the San Jose to Merced Section environmental process to complete the Checkpoint B concurrence.
- Finally, Checkpoint C is the assembly and assessment of information contained in this EIR/EIS and associated technical studies for consideration by USACE and EPA in determining the preliminary LEDPA and providing a formal agency response. The documentation includes documents prepared for compliance with the Clean Water Act, federal Endangered Species Act, the National Historic Preservation Act, such as mitigation plans, a biological assessment, and cultural resources reports. The Authority and FRA coordinated with resource agencies, including the USFWS and SHPO, during preparation of these materials. USACE and EPA concurred on March 26, 2012, and March 23, 2012, respectively that the Hybrid Alternative is the preliminary LEDPA (USACE 2012, EPA 2012).

All materials prepared for the checkpoints are available on the Authority’s public website at <http://www.cahighspeedrail.ca.gov/>.

7.7 Preferred Alternative

The Hybrid Alternative has been identified by the Authority and FRA as the Preferred Alternative for the north-south connection between Merced to Fresno, including the Downtown Merced Station and the Mariposa Street Station Alternative for the Downtown Fresno station. Due to influencing factors from adjacent sections, the preferred wye option and the HMF will be identified during the environmental evaluation processes for the Fresno to Bakersfield Section and the San Jose to Merced Section. The Preferred Alternative is shown in Figure 7-6 and the reasons for the selection of each project feature are described below.

¹ “Practicability” is defined as available and capable of being done after taking into consideration cost, existing technology, and logistics in light of the overall project purposes (40 CFR Part 230.10(a)(2)).

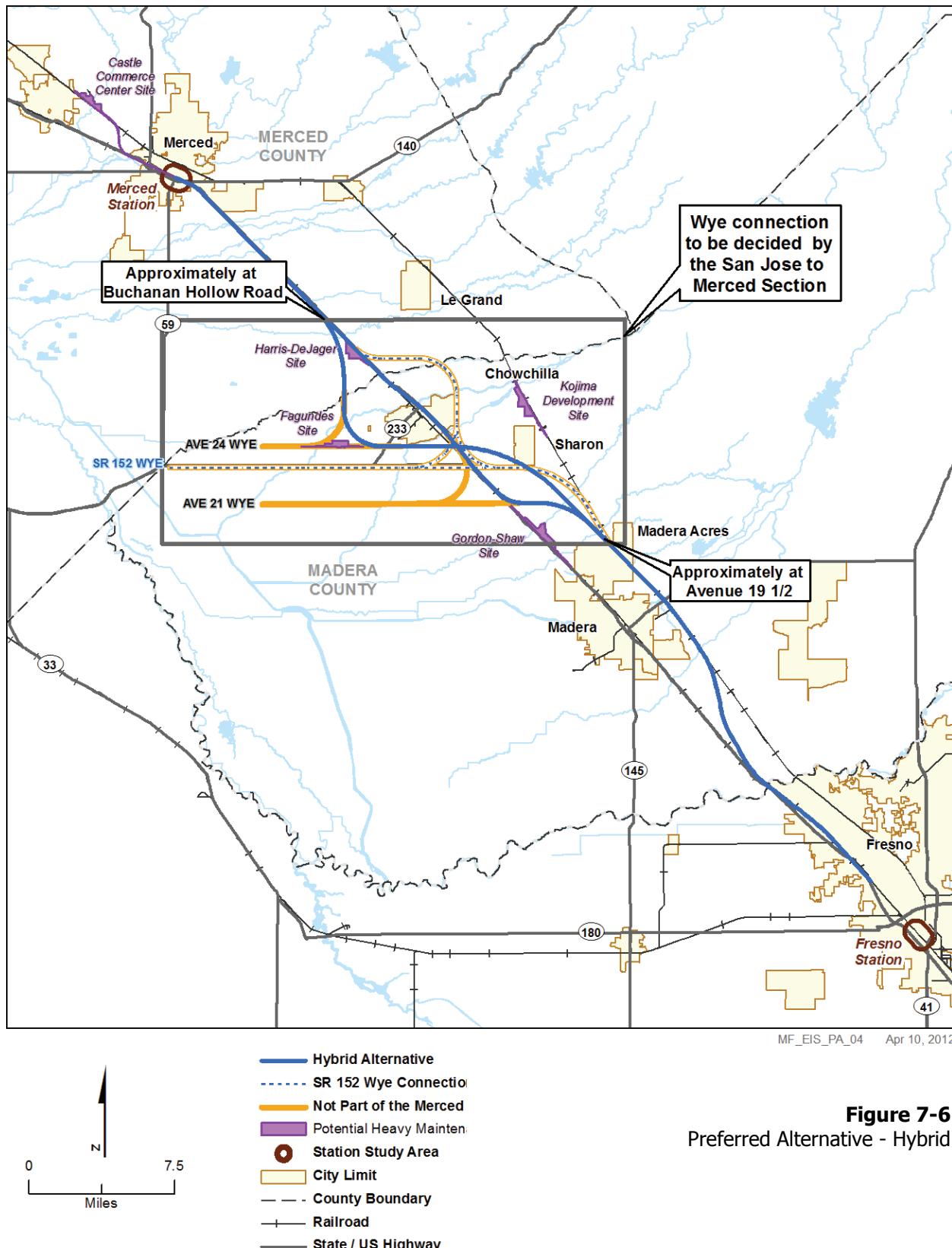


Figure 7-6
Preferred Alternative - Hybrid

7.7.1 Preferred Alignment

The Authority and FRA have identified the Preferred Alternative as:

- The Hybrid Alternative

Analysis

As presented above, the Hybrid Alternative would have natural resource impacts generally similar to the UPRR/SR 99 Alternative and fewer impacts than the BNSF Alternative. The Hybrid Alternative would result in fewer effects on community resources than either of the other two alternatives and substantially less than the UPRR/SR 99 Alternative, particularly construction impacts such as noise, dust, air quality, and reduced access to parks and businesses. Overall, in balancing the effects on natural and community resources, the Hybrid Alternative minimizes environmental impacts the most. The Hybrid Alternative has the fewest constructability issues, which is also reflected in it being the lowest-cost alternative, at approximately \$450 million less than the BNSF Alternative and over \$1 billion less than the UPRR/SR 99 Alternative. This is because the Hybrid Alternative is shorter than the BNSF Alternative and has less elevated guideway and fewer impacts on adjacent infrastructure than the UPRR/SR 99 Alternative. The Hybrid Alternative offers the second best travel time, taking only 30 seconds longer between San Francisco and Los Angeles, a minute more between Merced and Fresno, and the same amount of time between San Francisco and Merced compared to the UPRR/SR 99 Alternative. The BNSF Alternative would have the same travel time as the Hybrid Alternative between San Francisco and Los Angeles, but otherwise it would take as much as 4 minutes longer than the other two alternatives. All alternatives affect Camp Pashayan, which is protected as an ecological preserve under Title 14 of the California Code of Regulations. The Authority would prepare and issue a Resolution of Necessity and submit it to the Public Works Board as part of the right-of-way process. Overall, the Hybrid Alternative best meets the regulatory requirements and wishes of the majority of the public by minimizing impacts on the environment, farmland, and communities. It would avoid the greater impacts on the environment and rural communities in Merced County that occur with the BNSF Alternative, and would avoid the greater impacts on more urban areas along the UPRR/SR 99 Alternative, such as in the City of Madera.

7.7.2 Wye Option

The Authority and FRA have not identified a preferred alternative for the wye option at this time. This will be determined as part of the San Jose to Merced Section EIR/EIS document.

Analysis

The connection between the north-south alignment of the preferred Hybrid Alternative in the Merced to Fresno Section and the east-west alignment of the San Jose to Merced Section would require a railroad wye. The Hybrid Alternative has wye options whose selection depends on the selection of an east-west HST alignment east of I-5. The Merced to Fresno Section Final EIR/EIS does not select the preferred alternative for an east-west HST connection, i.e., the route for the wye. The San Jose to Merced Section EIR/EIS will fully evaluate all three wye configurations currently under consideration, including the two wye configurations connecting to the Hybrid Alternative as identified in this Merced to Fresno Section EIR/EIS and the SR 152 Wye. A decision regarding the preferred east-west connection of the San Jose to Merced Section to the Merced to Fresno Section would occur following circulation of the San Jose to Merced Section EIR/EIS.

7.7.3 Stations

The Authority and FRA identified the preferred station locations as the Downtown Merced Station, shown in Figure 7-4, and the Downtown Fresno Station, Mariposa Street Station Alternative, shown in Figure 7-5.

Analysis

The City of Merced worked closely with the project team and, as such, there is only one reasonable location for the Downtown Merced Station. The preferred station for the City of Fresno is the Mariposa Street Station Alternative. The City of Fresno prefers the Mariposa Street Station Alternative because it provides the best opportunity for enhancement of land use densities consistent with the City's current planning for transit-oriented development in the draft *Fulton Corridor Specific Plan* and the draft *Downtown Neighborhoods Community Plan* (City of Fresno 2011a, b). Additionally, there are relatively minor differences in the impacts between the two stations.

7.7.4 Heavy Maintenance Facility

The Authority and FRA have not identified a preferred alternative for an HMF site at this time. This decision will be deferred to a later date as part of the San Jose to Merced Section EIR/EIS document, because the selection of the HMF may be affected by the selection of the wye and the Fresno to Bakersfield Section EIR/EIS process, which will also consider HMF alternatives.

Analysis

The Merced to Fresno Section, which is the focus of this Final EIR/EIS, does not select the preferred alternative for an east-west wye connection to the Merced to San Jose Section (see the discussion of the wye selection above). On October 27, 2011, via email, the Harris-DeJager sponsor withdrew its proposal from the Authority's consideration of potential HMF sites. However, to remain consistent with previous analysis and provide a basis of comparison among the HMFs, the analysis of this potential HMF site has been retained in the Merced to Fresno Section Final EIR/EIS. The Hybrid Alternative has HMF site options whose selection depends on the east-west wye connection, and the Harris-DeJager HMF site was one of the potential HMF sites connecting with the Hybrid Alternative. The subsequent San Jose to Merced Section Final EIR/EIS will select the preferred east-west connection, which may also influence the range of potential HMFs within the Merced to Fresno Section. Additionally, there are several HMFs sites considered in the Fresno to Bakersfield Section EIR/EIS. The preferred HMF site will be identified once additional environmental review is complete by both sections.